Institutional and Actor-Network Theories of Accounting: Can They Be Combined?

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Abstract

Intrigued by the emerging trend to combine IT and ANT in accounting research, we investigate whether or not the combination gives rise to paradigmatic tensions and if so, how scholars have dealt with such tensions in practice. Our analysis of the two method theories’ key paradigmatic premises suggests that there are several differences and tensions between them. The most significant tensions relate to the two method theories’ diverging ontological conceptions of the nature of social structures and agency and their very different epistemological views of the role of theory. Our review of extant accounting research combining IT and ANT indicates that in the majority of studies, these tensions have simply been ignored. This may be seen as a rather worrying lack of reflexivity on the challenges involved in mixing theories with distinct paradigmatic origins. If further rapprochement in the simultaneous employment of IT and ANT is considered useful, it is important to consider the asymmetry of the situation: Due to the particular paradigmatic premises of ANT, it is challenging to combine it with other method theories. Hence such rapprochement can only take place through an IT-based analysis incorporating elements from ANT, for instance by paying greater attention to materiality and non-human actors; assuming an issue-based view of organizational fields; and adopting a relational, dynamic perspective on power. The major implication of our study is the need for accounting researchers to practice greater reflexivity when considering the combination of two theoretical perspectives.

Introduction

Contemporary accounting research is characterized by the application of a range of method theories borrowed from fields such as sociology, psychology and economics in order to find answers to various domain theory problems\(^1\) (Lukka, 2005; Lukka & Vinnari, 2014). Over the past two decades, two increasingly influential method theories, namely institutional theory (IT)\(^2\) (see Dillard et al., 2004; Moll et al., 2006; Ribeiro and Scapens, 2006) and actor-network theory (ANT) (see Justesen and Mouritsen, 2011; Lukka and Vinnari, 2014), have been widely employed in empirical accounting research. Whilst evolving into substantial bodies of literature in their own right there have also been repeated calls for combining IT and ANT as they arguably complement and enrich each other. Such calls originate in the

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\(^1\) Domain theory refers to a substantive body of knowledge situated in a field such as accounting, while method theory is a meta-level system for studying the substantive issues of the domain theory in question (Lukka & Vinnari, 2014)

\(^2\) In the present paper, we confine the notion of IT to new and neo-institutional sociology which has constituted the key basis for rapprochement with ANT (see Czarniawska and Sevon, 1996; Lawrence and Suddaby, 2006). Other institutional approaches informing contemporary accounting research, such as old institutional economics (Burns and Scapens, 2000), have been much less influential in this regard and are not discussed in detail.
broader organisation and management literature (e.g., Czarniawska and Sevon, 1996; Lawrence and Suddaby, 2006) and have gradually found their way into the accounting literature (e.g., Lounsbury, 2008; Modell, 2009). Empirical inquiries into various accounting practices selectively incorporating key concepts from ANT into institutional analyses or seeking more comprehensive integration of insights have also emerged (e.g., Adolfsson and Wikström, 2007; Arena et al., 2010; Hopper and Major, 2007; How and Alawattage, 2012; Modell, 2005; Rautiainen and Scapens, 2013). Conceptually speaking, such attempts at combining IT and ANT represent an instance of simultaneously applying two method theories in order to provide a more comprehensive view into particular research problems situated in the domain of accounting.

As with any body of research integrating insights from different theoretical perspectives, this emerging trend to combine IT and ANT in accounting research raises the issue of whether researchers have done so in a paradigmatically consistent and justifiable manner or whether it gives rise to paradigmatic tensions detracting from the possibilities of meaningful theoretical syntheses. Little systematic attention has been paid to this issue but would seem warranted when considering the historical development of these perspectives and their rather different views of theory development. Since its emergence in the late 1970s, IT has undergone considerable conceptual development partly as a result of incorporating insights from a relatively broad range of other social theories (see Greenwood et al., 2008). Whilst this has contributed to establish IT as a dominant stream of research, if not the new mainstream, in organisation and management studies it has raised concerns that the theory is becoming too all-encompassing and risks misappropriating other theories in its quest for hegemony (e.g., Cooper et al., 2008; Modell, 2015a; Willmott, 2011, 2015). By contrast, some ANT scholars, especially Latour (1987, 2005), have long defended the position that empirical inquiries should progress on a stand-alone basis without the researcher imposing theoretical frameworks on those to be studied or seeking to synthesize empirical insights into more comprehensive and generalizable theoretical models. Interestingly, most ANT-inspired accounting scholars have not explicitly discussed the possibility or permissibility of combining ANT with other theoretical approaches as some corrective to its alleged deficiencies. It rather seems that they have typically chosen to faithfully follow Latour’s (1987, 2005) order not to decide in the actors’ stead what makes them act whilst focusing in depth on a range of substantive empirical issues (see e.g. Chua, 1995; Mouritsen et al., 2009; Skaerbaek and Tryggestad, 2010). According to Justesen and Mouritsen (2011), however, early advances introducing ANT as a novel approach to accounting scholarship, such as Miller (1990, 1991) and Robson (1991), did not strictly follow this position but rather tended to read it through complementary theoretical lenses (including IT). This underlines the need to assess whether more recent accounting research combining IT and ANT has progressed in a paradigmatically justifiable direction or whether it represents an essentially incommensurable mix of theories of little scholarly value as a basis for the examination of accounting practices.

The present paper seeks to address this question through a comparison of the key paradigmatic premises of IT and ANT and a review of extant accounting research combining
these approaches. We pay particular attention to the ontological, epistemological and methodological differences and similarities between these approaches and assess whether accounting researchers have explicitly recognised the potential tensions emerging from their combination and how they have dealt with such tensions. However, rather than assuming that the combination of IT and ANT will inevitably result in insurmountable paradigmatic tensions, we adopt a “naturalistic” approach (Kakkuri-Knuuttila et al., 2008) and seek to evaluate whether such tensions are indeed intractable or whether they have been overcome in actual research practices.

Our analysis of the key philosophical premises of IT and ANT suggests that there are several notable differences and paradigmatic tensions. The most significant tensions relate to ontological conceptions of the nature of social structures and agency and their very different epistemological views of the role of theory. These may be taken as an indication of incommensurability and lead to an asymmetrical situation where it is only IT-dominated accounting studies that can borrow elements from ANT. IT-inspired research could for instance pay greater attention to materiality and non-human actors; adopt an issue-based view of organizational fields; and espouse a dynamic, relational perspective on power. Our analysis of extant accounting research indicates that in research practice, scholars have simply ignored such tensions with little or no explicit discussion of the issues involved. We therefore call for more reflexivity on the part of scholars contemplating the combination of two theories with distinct paradigmatic origins.

The paper proceeds as follows. In the second section, we compare the key ontological, epistemological and methodological premises of IT and ANT. In the third section we present the results of our review of extant accounting literature combining IT and ANT. In the fourth section we discuss our findings and in the fifth section we present the conclusions and implications of our study.

**Institutional and Actor-Network Theory: A Comparison of Key Paradigmatic Premises**

The following section compares IT and ANT along some key paradigmatic premises such as their ontological foundations, epistemological commitments and the methodological practices generally associated with the two schools of thought. Particular attention is paid to how the evolution of thought within each of these bodies of research has given rise to differences and similarities between them and whether this may be expected to generate tensions when they are combined in individual pieces of research. After discussing the key premises of each theory in some detail we offer an initial assessment of what tensions are likely to prevail and summarise the main issues of interest in our review of extant accounting research combining IT and ANT.
Institutional theory

Ontological foundations
In terms of ontology, IT has undergone some notable changes since its emergence as an increasingly influential school of thought in organisation and management studies in the late 1970s. In their foundational work, Meyer and Rowan (1977) drew heavily on Berger and Luckman (1967) and described institutions as social constructions evolving through collective deliberations between human agents but gradually achieving an increasingly taken-for-granted, or objectified, status that cements social structures and renders them relatively insensitive to the immediate influence of social actors. Whilst originating in social constructivism, this emphasis on social structures as relatively objectified and immutable entities implies that the ontology underpinning IT has also had a more or less pronounced, realist dimension to it and that it represents a form of “depth ontology” according to which the social resides at a somewhat higher level of abstraction that is at least partly independent of individual actors (see Leca and Naccache, 2006). This realist conception of social structures was arguably reified as the theory evolved in the 1980s and increasing empirical attention was paid to how such structures diffuse within increasingly homogeneous populations of organisations, or organisational fields, held together by shared norms, beliefs and rules (Meyer et al., 1994; Tolbert and Zucker, 1996). Much of this research followed DiMaggio and Powell’s (1983) dictum that organisational fields gradually coalesce and are stabilised around such structures through processes of institutional isomorphism but tended to place limited emphasis on the more active role of human agency in institutional reproduction and transformation. However, this started to change in the late 1980s (DiMaggio, 1988; Powell and DiMaggio, 1991) and has since given rise to a plethora of work seeking to imbue institutional analyses with a stronger sense of how individual and groups of social actors interact with extant and emerging social structures and how this interplay fosters institutional change (see Battilana et al., 2009; Greenwood et al., 2011). This signifies a transition to an ontological position that recognises the possibilities of human agency and how such agency is implicated in affecting institutional change without negating the continued influence of pre-existing structures. Rather than conceiving of human agency as some free-floating and relatively unconstrained phenomenon, most institutional theorists now subscribe to a conception of agency as institutionally embedded and often implicated in a complex interplay with historically contingent structures. Yet, over time, they have come to differ in the relative emphasis placed on various aspects of this interplay and in explaining how it fosters institutional change and stability.

These differences are especially obvious when considering the two streams of research clustered around the notions of institutional logics and institutional work which have increasingly come to dominate IT over the past decade (see Zilber, 2013). The institutional logics approach evolved from the pioneering work of Friedland and Alford (1991) and has paid considerable attention to how organisational fields either tend to undergo relatively complete shifts between dominant logics or evolve into more heterogeneous and fragmented entities as a result of being structured around multiple and often competing logics (see Thornton and Ocasio, 2008; Thornton et al., 2012). Similar to the conception of institutions
permeating early advances in IT, institutional logics are conceived of as objectified, higher-order templates (e.g., rules, norms and beliefs) which imbue social action with meanings as they are produced and re-produced within organisational fields without becoming isomorphic with the practices evolving from such actions. The ontological status of institutional logics is thus distinct from that of individual actors and much research on the topic has tended to reinforce an essentially realist conception of institutions (Leca and Naccache, 2006; Thornton and Ocasio, 2008). In contrast to earlier advances in IT, however, the institutional logics approach has been closely wedded to some “new structuralism” in organisation and management studies (Lounsbury and Ventresca, 2003) which recognises that a plurality of templates often foster structural variation and complexity in organisational fields and that it is this complexity that constitutes the source of institutional change (see Greenwood et al., 2011). Consistent with the notion of human agency as an institutionally embedded phenomenon, the conception of agency associated with such change is one that recognises that human beings have a capacity to act but that in doing so they draw on diverse templates to render their actions meaningful and consequential. Individual social actors may also be embedded in multiple templates, which renders their actions less predictable and dominated by a single institutional logic (see e.g., Battilana and Dorado, 2010; Ezzamel et al. 2012; Greenwood and Suddaby, 2006; Lander et al., 2013). However, most research following the institutional logics approach has tended to foreground the more structural dimensions of institutional change and emphasise its rather evolutionary nature as it unfolds over longer periods of time (Zilber, 2013). Leading advocates of this approach, such as Lounsbury (see e.g., Khagan and Lounsbury, 2011; Lounsbury, 2008), have also voiced their scepticism against overly actor-centric conceptions of institutional change as dominated by specific, powerful agents. Hence, similar to earlier advances in IT, the institutional logics approach tends to conceive of at least rapid and radical institutional change as a rather exceptional and episodic state that is always conditioned and often muted by extant institutions.

In contrast to the institutional logics approach, research emerging under the rubric of institutional work has started to pay more focused attention to the individual as well as collective agency of social actors whilst sharing its conception of agency as an institutionally embedded phenomenon. Institutional work is defined as the purposive yet structurally conditioned actions involved in creating, maintaining and disrupting institutions (Lawrence et al., 2009; Lawrence and Suddaby, 2006). As such, the conception of institutional change is extended to the entire cycle through which extant institutions are challenged and new ones emerge and are gradually stabilised through more on-going, mundane efforts exercised by diverse agents. Attention is also being paid to the agency involved in maintaining extant institutions in the face of more or less radical challenges. Moreover, the institutional work approach takes considerable interest in the problems of mobilising the actions of individual social actors into collective agency in organisational fields and recognises that this does not necessarily unfold as a tightly coordinated process dominated by specific, powerful actors. Rather, it conceives of institutional work as distributed across a broader range of actors and recognises that collective agency often emerges through seemingly more spontaneous processes as diverse actors vie for power and influence but gradually reach some politically negotiated consensus regarding desired courses of action (see e.g., Chiwamit et al., 2014;
In contrast to much prior institutional research, some commentators have seen this as signifying a more indeterminate view of institutional change that places the process rather than the outcomes of change centre-stage and recognises that such processes often entail a considerable amount of serendipity (e.g., Modell, 2015a; Zilber, 2013). However, this shift towards a view of institutional change as a less linear or orderly process has occurred without negating the continued, historically contingent influence of extant institutions. Even though most empirical research on institutional work has tended to focus on the various forms of work, or agency, involved changing or maintaining institutions the originators of this strand of institutional thought have repeatedly emphasised the need to conceive of agency and change as institutionally embedded phenomena (see Lawrence et al., 2011, 2013).

**Epistemological commitments**

By way of over-riding epistemological position, IT is based on a commitment to both inductive and deductive theorising (Greenwood et al., 2008; Schneiberg and Clemens, 2006). The need for inductive research was made plain by DiMaggio and Powell (1983) as they emphasised that the exact nature of organisational fields cannot be theorised a priori but needs to be discovered through empirical inquiries mapping out the relations between key actors and how their actions are conditioned by extant and emerging institutions. This basic epistemological principle is also followed in much institutional research as researchers typically seek to situate and elaborate on general institutional arguments in specific empirical locales (Schneiberg and Clemens, 2006). However, institutional theorists frequently combine inductively generated insights with a hypothetico-deductive mode of theory development and continuously seek to take stock of emerging insights in the form of coherent conceptual syntheses (see e.g., Lawrence and Suddaby, 2006; Scott, 2001; Thornton et al., 2012). The deductive element is also manifest in the extensive borrowing and incorporation of concepts and ideas from other social theories into institutional frameworks as a means of filling conceptual gaps and overcoming limitations in institutional arguments. Taken together, this has fostered an ever-expanding theoretical edifice geared towards explaining institutional persistence and change in a range of organisational phenomena and across diverse empirical settings (Greenwood et al., 2008).

These efforts to continuously refine and extend IT have led some commentators to argue that it is firmly wedded to a normal science tradition geared towards continuous theoretical puzzle-solving rather than radical questioning of its epistemological commitments (Cooper et al., 2008; Modell, 2015a; Willmott, 2015). These normal science inclinations have arguably led institutional theorists to favour theoretical precision and elegance over attempts to explore the more mundane, on-going and often indeterminate processes through which institutions are being (re-)produced on an everyday basis. This tendency was especially notable in the early development of IT and reinforced the realist conception of institutions as highly objectified and immutable entities (Bowring, 2000). However, more recent critiques suggest that it has persisted despite over two decades of research seeking to produce more balanced accounts of how institutions interact with human agency and increasingly conceiving of organisational fields as less stable and homogeneous entities (Clegg, 2010; Zald and Lounsbury, 2010). Not
even where institutional theorists examine more indeterminate processes of institutional change, as in much of the research on institutional work, do they seem capable of breaking with this frame of mind. According to Zilber (2013, p. 88), most research on institutional work has favored relatively distanced and retrospective accounts at the expense of more direct inquiries into the “immediate ongoing, messy institutional work at the stage in which no one knows – neither the actors nor the researchers – whether these actions would result in maintaining, creating, or changing the institutional order”.

Adding to this propensity of IT to emphasize the orderly and predictable nature of institutionalization and institutional change, most research in the area also harbors relatively fixed and clearly demarcated assumptions about key units of analysis. This is especially notable with respect to the actors featuring most prominently in institutional analyses. Whilst typically following DiMaggio and Powell’s (1983) advice to inductively map out the relations between various actors in organizational fields and rejecting notions of reductionism (Schneiberg and Clemens, 2006), institutional theorists have generally concentrated their inquiries to a relatively limited number of powerful actors favored by extant institutions or exerting a dominant influence on institutional change. This tendency to focus on a relatively small number of elite actors can be traced to DiMaggio and Powell’s (1983) emphasis on the State and the professions as the dominant rationalizers in contemporary Western society and originators of institutional persistence and change. Even though subsequent advances, such as Friedland and Alford (1991), attempted to broaden this perspective by locating the origins of institutions within wider spheres of society, this relatively narrow conception of which actors matter has continued to permeate institutional analyses and has led some critics to argue that the theory nurtures a pronounced “elite bias” (see Modell, 2015a). This bias is manifest in the pre-occupation with how social elites come to dominate the stratification of organizational fields (Lawrence and Suddaby, 2006; Lounsbury, 2003) and the adoption of a rather unquestioning approach to the power exercised by such elites (Clegg, 2010; Munir, 2015; Zald and Lounsbury 2010). This has led to repeated calls for widening the scope of institutional analyses to include a broader range of constituencies and examine how their interests are being promoted and hampered (e.g., Lawrence and Suddaby, 2006; Lawrence et al., 2011). However, such research is still in its infancy (see Lawrence et al., 2013) and has arguably been hampered by the rather conservative epistemology underpinning IT as a research tradition dominated by concerns with emerging and established elites and their interests in creating and maintaining social orders (Modell, 2015a; Willmott, 2015).

Methodological practices
The ontological and epistemological premises outlined above have had a profound impact on the methodological practices evolving in institutional research. As we have already indicated, the main unit of analysis in IT is the relatively structured, social relationships that make up organizational fields. Such fields have mainly been conceptualized as relatively distinct populations of organizations, often corresponding to specific societal sectors, even though they are increasingly conceived of as more fragmented and contested spheres of social life and greater attention is being paid to how emerging fields are constructed (Wooten and Hoffman, 2008). These developments have been accompanied by the extension of
institutional analyses to pay more focused attention to the roles of specific social groups within individual organisations (e.g., Battilana and Dorado, 2010; Pache and Santos, 2010; Reay et al., 2006) and how institutional processes unfold across different levels of organisational fields (e.g., Powell and Colyvas, 2008; Purdy and Gray, 2009; Smets et al., 2012). Nascent developments in this direction are discernible both within research on institutional logics, where increasing attention is being paid to how logics manifest themselves at the over-riding field level as well as lower levels of analysis (Thornton et al., 2012; Zilber, 2013), and in the literature on institutional work which subscribes to a view of institutions as nested systems of social structures spanning the organisational, field and broader, societal levels of analysis (Lawrence and Suddaby, 2006).

But in conducting such multi-level studies institutional theorists still maintain a clear distinction between the macro- and micro-levels of analysis. Institutions are examined in terms of structures that are “pulled down” from the over-riding field level or “built up” from lower levels of analysis (Powell and Colyvas, 2008) whilst gradually forming a complex and often recursive interplay across various levels of analysis and giving rise to homogeneity or heterogeneity in organisational fields. The social actors implicated in this interplay are also conceptualised as entities with relatively sharply delineated boundaries and clearly defined interests and political agendas. Even though actors are embedded in more or less institutionalised structures operating across multiple levels of analysis, institutional theorists have increasingly come to emphasise the need to conceptualise them as analytically distinct from such structures. Making such a sharp analytical distinction between actors and the structures in which they are embedded is seen as essential to avoid the widespread problem in social theory of conflating the two (Leca and Naccache, 2006; Thornton and Ocasio, 2008). It also facilitates the delineation of extant structures as separate from those emerging from the individual and collective agency exercised by various actors as they engage with novel templates and seek to transform them into more firmly established institutions over time. This may in turn help resolving the “paradox of embedded agency”, or the seemingly intractable puzzle of how agents who are embedded in particular structures can challenge and bring about change in such structures, emerging in some earlier institutional research (see Battilana and D’Aunno, 2009; Zietsma and Lawrence, 2010).

The dominant methodological approach for examining institutional persistence and change has been longitudinal and often historically informed studies using a variety of data sources. However, the relative emphasis on the specific methods used to inquire into such processes is also beginning to change as a result of the changing conceptualisation of organisational fields and the expansion of research beyond the macro level of analysis. Whilst institutional research was long dominated by quantitative methods, typically using archival data for tracing the emergence and diffusion of institutions over longer periods of time, the growing interest in the role of human agency and ongoing change processes has led to increasing emphasis being placed on various forms of qualitative methods (Schneiberg and Clemens, 2006). This is especially the case in the literature on institutional work, which has primarily grown out of in-depth, qualitative inquiries into how various actors affect institutional change and stability, but is less notable in research on institutional logics, which has retained a
pronounced macro-level focus and concerns with how such logics take shape and come to permeate larger populations of organisations (Zilber, 2013). However, qualitative methods are also beginning to make important contributions to the latter body of research, often as a complement to quantitative research as part of mixed-methods inquiries (see Lounsbury, 2008; Purdy and Gray, 2009).

**Actor-network theory**

**Ontological foundations**
In contrast to IT, the ontological premises of ANT are more difficult to express with reference to traditional categorisations. Instead, ANT’s ontology seems best characterized as a mix of relationist, realist and constructivist tendencies, which pivot around the key concepts of actor, network and translation. While the IT conception of an actor is strictly limited to human beings, in ANT an actor is understood as a more heterogeneous and contingent entity. These features were already highlighted in one of the first definitions of an actor as “any element which bends space around itself, makes other elements dependent upon itself and translates their will into a language of its own” (Callon and Latour, 1981, p. 286). Although this characterization has since been streamlined into a more relationist definition of an actor being “any thing that has an effect on another thing” (Latour, 2005, p. 71), the key messages remain the same. The first of these messages is that non-human entities are as ontologically real and as capable of exercising agency as human beings. However, this position does not lead to a naïve anthropomorphic conception of material artefacts being endowed with similar capabilities as human beings or of non-humans’ actions being directed by intentions, but simply that the form of agency is in an ontological sense irrelevant as long as it makes a difference in the surrounding world. Therefore, ANT studies have always brimmed with non-human actors such as scallops (Callon, 1986a), laboratory paraphernalia (Latour & Woolgar, 1979), microbes (Latour, 1988), law systems (Latour, 2009a) and ecological crises (Latour, 2004a). The second important point to be derived from ANT’s definition of an actor is that what an actor does when being in contact with others is more interesting than what it is, thereby distancing ANT from any notion of ontological “essentials”. Such an emphasis on action and connectedness becomes even more evident in the case of the second fundamental concept of ANT, that of the actor-network. This hybrid entity is “simultaneously an actor whose activity is networking heterogeneous elements and a network that is able to redefine and transform what it is made of” (Callon, 1987, p. 93). Thus, actors and networks are viewed as co-constituted, dynamic and inseparable elements as opposed to the clearly delineated actors and stable structures prevalent in much of IT research.

A rather unique ontological feature of ANT is that it subscribes to a relationist view of the world, according to which an actor is only considered real if it is related to other things and has an effect on these. An actor does not exist outside a network of relations; in fact, an actor is its relations (Harman, 2009). This is because it emerges from relational interactions and its characteristics are (re)defined each time it is involved in the dynamics of some network.
Ceteris paribus, the more connections to others an actor has, the stronger, more real and more clearly defined it is, and vice versa. Moreover, in line with ANT’s anti-essentialist principles, no characteristics are considered to precede relational interaction but “the competencies of the actor will be inferred after a process of attribution” (Latour, 1996a, p. 237). Such relationist ideas are mixed with realist ontological beliefs in the sense that the actors and relations which make up the world are considered to be fully real at each moment. This view of objects just being there, both independent of our perception and in an atheoretical sense, suggests that ANT’s tendencies could even be described as naïve realism, a characterization that Latour (2005, p. 156) readily accepts. However, as a notable deviation from classical realism, ANT also argues that the actors cannot be divided into permanent essential features and accidental superficial properties; an actor is simply the sum of all the properties that it has at a particular moment (Harman, 2009). As is characteristic of relationism, these properties are dynamic as they are continuously redefined in networked interactions, even though some of them might be more resistant to change than others. Another marked difference to generic realist views is that although ANT views external reality as being independent of human actions and perceptions, it does not consider that reality to have existed before us nor to be independent from the scientific devices and methods used to examine it (Law, 2004, pp. 31-32). With certain tools and data collection procedures, a certain reality becomes constructed, implying that several realities are in fact possible. This claim also represents a departure from for instance critical realism as it displays a lack of depth ontology, that is, the belief that reality consists of distinct but embedded domains (Elder-Vass, 2008). The lack of depth ontology places ANT in stark contrast with the ontological hierarchy that is at least implicit in IT.

In ANT lexicon, the process through which an actor emerges and acquires its characteristics is known as translation, construction or association, depending on which aspect of the process is emphasized. The notion of translation stresses the idea that a fact or an innovation does not emerge as a result of a linear development path but is transformed and modified along its unpredictable trajectory. Importantly, it is not only the emerging fact or innovation that is modified during such a process but the properties and interests of the actors connected to it are (re)defined as well. Moreover, translation always involves trials of strength in which the persistence of the objects-to-be are tested by other actors; that which is able to resist such trials becomes “real” (Latour, 1987, p. 93). When in turn this process is referred to as “construction”, the aim is to highlight that the emergence of real objects is a costly, laborious achievement that requires the collaboration of both humans and non-humans. Thus, ANT’s “constructivism” takes into account a wider variety of actors than the human-centred “social constructivism” prevailing in IT (Latour, 2005).

A distinctive feature of ANT’s ontology is its rejection of dualities, whether these relate to agency and structure, nature and society, or language and the world. These elements are

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3 Whether these diverse realities are understood as “plural” or “multiple” varies between more traditional ANT accounts and those of the so called “ANT and After” school (e.g. Law and Hassard, 1999; Law, 2004; Law and Singleton, 2005; Mol, 2002). While the former focus on examining how one version of reality came into being, acknowledging that alternative realities were possible but never enacted, the latter argue that multiple versions of reality are simultaneously performed through various practices (e.g. Mol, 1999).
considered hybridized, or intertwined to such an extent that drawing a finite boundary between them is almost impossible. Thus, in marked contrast to IT, in ANT the notion of structure as typically defined has no role and hence agency is not considered embedded. ANT’s view of the world – its ontology – is notably flat, meaning, for instance, that macro-actors such as organizations are not taken a priori as something larger than micro-actors such as individuals (Latour, 1996a). Instead of forming a pre-existing, stable context for dynamic agency, structures are viewed analogously to any other actors: they are momentarily stabilized aggregates of local negotiations, controversies and other interactions involving humans and non-humans (Callon & Latour, 1981). The perception of there being distinct micro-level interactions and macro-level structures is achieved through active work of localization and globalization (Latour, 1996a). Both localization and globalization processes necessitate the presence of non-humans: objects are what prevent remote elements from interfering in local interaction as well as what enable the aggregation of individual interactions into global overviews, thus making action at a distance possible. Importantly, viewing the world as ontologically flat does not constitute a denial of the existence of structures or power differentials as such, but their re-presentation in an essentialist, relationist light. To paraphrase, structural elements may be assumed to pre-exist analysis but then ANT is not the appropriate analytical tool; IT or some other social theory can be employed in its stead.

While IT understands the world to comprise both stable elements (structures) and change stemming from active agency, ANT considers change to be ubiquitous and intertwined with the on-going transformation of actor-networks. It follows that stability is seen as a rare, temporary and fragile state the persistence of which requires constant maintenance. Thus, ANT studies focus mainly on the dynamics of change, particularly on rapid transformation that often involves the emergence of hybrids, in other words entities in which social and technical elements are inextricably intertwined. In this context, Latour (2004a, b) distinguishes between matters of fact and matters of concern. “Matters of fact” are stabilized entities, such as diesel engines or coffee cups, that have in their time emerged as hybrid innovations but whose existence and characteristics are currently taken for granted. In contrast, “matters of concern” are complex and uncertain issues, such as climate change or genetic modification, the characteristics of which are only being constructed and which should therefore form the focal point of ANT scholars’ attention (Latour, 2005, p. 261). In fact, when change is non-existent and the ingredients that make up the social world are known, ANT does not have much to say in comparison to more traditional social theories, such as IT, which can then be employed to yield substantive explanations. However, traditional theories may at times be inadequate to account for instances in which boundaries are fuzzy and it is unclear how a particular entity has been constructed: “New topics, that’s what you need ANT for!” (Latour, 2005, p. 142). In line with this exhortation, ANT scholars have examined for instance the advent of microbiology and vaccination (Latour, 1988), the electric vehicle (Callon, 1986b), carbon markets (Callon, 2009), and digital navigation (Latour, 2009b).
Epistemological commitments
While institutional theorists aim at refining or extending theory and set out to do this by both induction and deduction, ANT may rather be characterized as being a highly empirical approach with no interest in any of the mentioned theorization strategies or reasoning methods. This somewhat counterintuitive position derives from ANT’s ambiguous nature as neither a full-blown theory nor an exact method in the traditional sense of the word. According to Latour (2005), ANT is an approach for investigating translations without trying to predetermine who are the relevant actors, what connects them to each other, and how the translation process will unfold. The aim of an ANT study is therefore not to yield generalizable propositions but to produce – quite astonishingly – “[o]ne single explanation to a singular, unique case; and then we throw it away” (Latour, 1996b, p. 131). Cases and events are considered unique to the extreme: “everything happens only once, and at one place” (Latour, 1988, p. 162). In other words, constellations and properties of actors and the objects associating them are assumed to change constantly, and we cannot rely on the future emergence of similar events where the explanation forged for one case could be fruitfully employed. Thus, theory in itself has no role in ANT, other than as a possible object of research4, and the accumulation of knowledge in the normal science fashion seems, if not impossible, then at least a moot exercise.

ANT research is heavily focused on the intention to provide merely descriptions and from the epistemological viewpoint such descriptions are strikingly meant to be developed from almost a tabula rasa: ANT is supposed not to be based on any prior understandings as it denies, at least in principle, pre-existing conceptualizations such as structures and social forces. As noted above, this does not constitute a denial of the existence of such elements but merely of their application as inputs in an ANT analysis. ANT’s position in this regard resembles the logical positivist ontology and epistemology of the Vienna Circle as objects are considered to be there also in an atheoretical sense. The Vienna Circle’s viewpoint was ultimately buried as the theory-laden nature of observations (Hanson 1958; Popper, 1959) was generally accepted; a development that underscores the extreme character of ANT’s position in this sense.

The less radical corollary of such an extreme view is that, as concerns prior assumptions about relevant units of analysis, ANT is deliberately open-ended about which actants and relationships matter in the formation of actor-networks. In line with its anti-essentialist, constructivist premises, ANT’s key piece of advice to social scientists is that “actors themselves make everything, including their own frames, their own theories, their own contexts, their own metaphysics, even their own ontologies” (Latour 2005, p. 147). Researchers should abstain from making assumptions about the form assumed by agency as this is condescending towards those studied, and instead produce descriptions of how the actors themselves define and order the social whilst deployed in a range of controversies. Moreover, social scientists should refrain from trying to fit their findings within a

4 Theories can also be conceived of as actors in the sense of being performative (Callon, 1998; for a review of the performativity thesis and its criticism see Vosselman, 2014).
preconceived framework. In particular, construction processes and their particular outcomes should not be explained with reference to traditional sociological conceptualizations such as power, gender, class, religion, or institution, since these are not the drivers but the effects of such processes. Were that to be done, Latour argues, such a practice would have the detrimental effect of reifying and strengthening for instance power configurations, thus impeding rather than facilitating attempts to change them (Latour, 2005). However, as discussed further below, the tendency to see change as such an indeterminate phenomenon presents ANT analysts with certain methodological challenges that do not confront IT researchers.

Although ANT tries to avoid the predetermination of relevant actors, the relative importance attached to different types of actors and forces is an area that has given rise to various criticisms of ANT (Blok & Jensen, 2011). The view of the world emanating from the early meticulous descriptions of scientific practices verges on Machiavellianism due to the pronounced featuring of battles, seduction and defection of allies, and the clear demarcation line drawn between winners and losers (Law, 1999). This spirit of warmongering is reflected in one of the first definitions of translation: “all the negotiations, intrigues, calculations, acts of persuasion and violence, thanks to which an actor or force takes, or causes to be conferred on itself, authority to speak or act on behalf of another actor or force” (Callon & Latour, 1981, p. 279). It is fairly unsurprising, then, that these studies have instigated critiques of managerialism or privileging the powerful (Amsterdamska, 1990; Star, 1991; Haraway, 1994). When responding to such accusations, Latour has appealed to the imperative of necessity: the first ANT studies aimed at shaking the prevailing conception of the development of scientific knowledge as a linear process of gradually uncovering pre-existing truths (Crease, 2003). Furthermore, some commentators (e.g. Blok & Jensen, 2011) suggest that as an acknowledgement of the appropriateness of such critique, Latour has tempered his use of military metaphors, replacing them with the vocabulary of democratic deliberation and negotiation. Accordingly, the latest definition of translation offered by Latour (2005) refers neutrally to the formation of a traceable association between actors.

**Methodological practices**

While IT focuses on relatively structured, social relationships, ANT’s predominant unit of analysis is arguably the associations that are formed within networks of human and non-human actants. While the exact nature of such associations may remain unclear, more important is the manner in which these connections are forged – in other words the translation process that makes weak associations into stronger ones and vice versa (Callon & Latour, 1981, p. 300). The study of scientific practices for instance involves tracing the sequential and reversible steps that are needed to yield a taken-for-granted statement about external reality. Being able to do this requires that the analyst is able to identify and follow the actors and especially mediators, that is, actors who “transform, translate, distort and modify the meaning or the elements they are supposed to carry” (Latour, 2005, p. 39). Non-human mediators are especially difficult to locate because they quickly turn into voiceless intermediaries who merely transport the elements without modifications, thus leaving no trace for the analyst to follow. To locate such traces, researchers are advised to make use of
controversial situations where new kinds of troubling issues and associated groups emerge, such as in the case of municipal residents concerned about plans to build a nuclear waste disposal site in their vicinity (Callon, Lascoumes & Barthe, 2009) or conspiracy theorists populating the internet after 9/11 (Latour, 2004b).

As can already be anticipated from ANT’s attempts to straddle the agency-structure gap, it also actively seeks to dissolve notions of “micro” and “macro” as analytically separate domains. Similarly as in the case of the other dichotomies rejected by ANT, the point here is not to deny the existence of macro-actors that order micro-scale interactions but to direct attention to the processes that result in relative differences in scale. What is of interest is not the fact that there are multinational corporations’ global headquarters, but the globalization work that has been and is unceasingly done to compile the numerous interactions conducted in local offices, canteens and skype conferences to render an entity that radiates an air of stability and macro-order. Of equal interest is the work of localization that prevents the headquarters from interfering in each and every interaction taking place in subsidiaries. Since the micro and the macro are necessarily considered in tandem, the analyst is spared from having to choose between levels of analysis; she must merely decide on the scope of her analysis and the time that she is willing to allocate to the study. She can either know “intensively, much about little or extensively, little about much” (Latour, 1996a, p. 300).

The tendency to privilege processes over mere being has consequences for the type of analysis conducted by ANT scholars. While IT studies can be both qualitative and quantitative in nature, most ANT studies are longitudinal, qualitative field studies and historical analyses. As mentioned above, such inquiries have often examined the associations formed during the construction of scientific facts or innovations (Latour & Woolgar, 1979; Latour, 1988; Latour, 1996b), or, more recently, the democratization of science (Callon et al., 2009; Latour, 2004a). While following the actors is the key methodological principle of ANT, it can still mean both doing research in real time or ex post facto.

Finally, while IT tends to see change as more orderly and predictable as a result of following different institutional templates or logics, in ANT studies change is considered relatively indeterminate. As mentioned above, this can already be anticipated from its atheoretical epistemology, which deliberately brackets structures and other entities that IT considers to have potentially stabilizing effects in the long run. The indeterminate nature of ANT analyses also has methodological implications in the form of practical challenges that confront someone hoping to conduct an orthodox ANT study. Without a problematization based on prior research to set the direction of the study, the researcher has little theoretical guidance for choosing which actors to follow and for how long. Latour (2005, p. 148) advises a bewildered scholar, in a rather flippant tone, to follow the traces from one actor to another and to stop “when you have written your 50,000 words”. This suggests to us that in contrast to the more or less clear-cut methodological approach of IT, in ANT the scope of the analysis is to be set on somewhat arbitrary principles.
Summary of differences and similarities between IT and ANT

Even though insights from IT and ANT are increasingly combined in empirical accounting research, the discussion above indicates that these method theories differ in several regards in terms of ontology, epistemology and the methodologies applied. The main differences and similarities between the two theories are summarised Table 1.

Insert Table 1 here.

In terms of ontology, IT may be seen as combining moderate readings of realism and social constructivism and, as such, it is similar to the worldview underpinning most conventional social theories resting on a notion of social structures as reasonably stable and objectified, albeit not immutable, entities. By contrast, ANT objects to such a worldview and represents a rather unique mix of realist, relational and constructivist features. While both IT and ANT contain an element of constructivism, they differ significantly regarding the roles ascribed to pre-existing social structures. IT readily accepts the existence of social structures and places them at the centre of analysis, while in ANT research, it is practically “forbidden” to use any kind of pre-existing structures as a starting point for the analysis of action. Instead, structures are only seen as the (often temporary) effects of ongoing interactions. As a result, the world of ANT is ontologically flat, whereas IT subscribes to a more pronounced depth ontology according to which the world consists of hierarchically layered structures that become more or less objectified over time. Perhaps the most important consequence of these differences in ontological underpinnings is that there is no notion of embedded agency in ANT, while contemporary IT research is firmly rooted in the idea that human agency is institutionally embedded and conditioned by historically contingent structures. Another implication is that ANT underscores the agency of non-human actors, whereas IT has conceived of agency as mainly exercised by human beings while paying increasing attention to how individual agency is negotiated into collective agency. Finally, even though some strands of IT, such as the literature on institutional work, recognise the need for a more ongoing and indeterminate view of change, the majority of IT research has conceived of change as a relatively exceptional event that is always conditioned by extant institutions. By contrast, ANT views change as ubiquitous and any stability emerging from ongoing translation processes is perceived as temporary and always fragile.

As for epistemology, the differences between IT and ANT, which are naturally related to their diverging ontologies, are perhaps even more prominent. The most central and highly significant difference between them relates to the role of theory in empirical analyses. Following a normal science tradition, IT research typically starts from a relatively firmly established theoretical base which is then problematized to form a basis for continuous theory refinements and extensions using a combination of inductive and deductive theorising. As a result of these relatively fixed theoretical priors IT has also had a rather constrained a priori view of which actors matter, although this may be beginning to change as a result of its
nascent attention to actors other than those representing social elites. By contrast, ANT objects to this mode of theorising and views the use of prior theory not as a resource but rather entailing a risk of leading the analysis astray. This a-theoretical focus makes ANT extremely empirical and also analytically indeterminate in a manner that is alien to most IT research. ANT is also deliberately open-ended about which actors and associations matter in the formation of actor-networks and become significant for the analysis. These epistemological differences between IT and ANT are likely to present notable challenges to their combination in a single study. If applied literally, the commitment of ANT to avoid a priori and cumulative theorising is indeed incommensurable with the normal science aspirations characterising IT.

Regarding methodology, IT and ANT differ slightly regarding the main units of analysis, which in the case of IT are organisational fields and in the case of ANT comprise associations between actors. Both theories recognise how fields and networks are constituted by multiple actors in and around formal organisations. However, a more prominent difference that relates to their diverging ontological and epistemological premises is that the practical conduct of IT-informed studies is guided by the theoretical focus of the study in question, while ANT research – which explicitly denies the application of theory as the directing frame for analysis – is considerably more open-ended regarding its unit of analysis. Also, while IT maintains a clear analytical distinction between macro- and micro-level processes, ANT research actively seeks to dissolve and transcend notions of “micro” and “macro” as separate domains by, again, considering them outcomes rather than starting points of a process. A final methodological difference is that while ANT has long highlighted the ongoing and indeterminate nature of the change through its firm endorsement of qualitative methods, the traditional dominance of quantitative methods in IT reinforced its conception of institutionalisation as a relatively stable and determinate outcome. Hence the methodological practices traditionally associated with the two theories may have reinforced particular conceptions of change although the growing use of qualitative methods in IT to nurture a more indeterminate view of institutionalisation has brought it closer to ANT.

Given the significant paradigmatic differences between IT and ANT, which may lead to a view of the two theories as incommensurable, the combination of them in a single study may be expected to generate considerable tensions. The most significant tensions relate to the diverging ontological conceptions of the nature of social structures and agency and their very different epistemological views of the role of theory. In these regards, IT and ANT represent polar opposites: one takes structures and the embeddedness of agency as given, the other rejects them; one tries to continuously refine or extend theory, the other is rather a-theoretical. The methodological practices associated with the two theories may also amplify such tensions although we are beginning to see some rapprochement in this regard. In what follows, we analyse whether the paradigmatic tensions associated with combining IT and ANT are explicitly recognised and, if so, how they have been dealt with in extant accounting research.
Review of Accounting Research Combining IT and ANT

Our review of accounting research combining IT and ANT is based on a systematic literature search across eleven major accounting research journals that have published or may be expected to publish research of this kind. Using combinations of key search terms such as “actor-network theory”, “institutional theory”, “sociology of translation”, “networks” and “institution” we searched these journals for relevant papers between 1990 and 2015. The starting point for the review was chosen based on the observation that the first accounting papers making explicit use of ANT were published around 1990 (see Justesen and Mouritsen, 2011; Lukka and Vinnari, 2014). Even though the use of IT in accounting research predates this development we did not expect these earlier works to incorporate elements of ANT to any significant extent. In deciding whether to include identified papers in our review we looked for evidence of whether explicit references were made to both IT and ANT as a means of either exploiting the complementarities between these perspectives or justifying the use of one method theory rather than the other. In total, the literature search generated 17 papers which were deemed relevant for inclusion in our review.

In analysing the papers under review, we pay particular attention to the discursive strategies that authors employ to justify the combination of IT and ANT or problematize the relationship between them. For the sake of inclusiveness, we chose to review papers that make reasonably extensive references to both method theories whilst taking somewhat different positions as to whether they should indeed be combined and how tightly they should be integrated. To this end, we found it helpful to categorise the papers into four distinct groups based on a slightly modified version of the taxonomy advanced by Jones and Dugdale (2002). Whilst this taxonomy was originally developed in a rather different context it shares our concerns with whether different genres of research are portrayed as conflicting or complementary and whether authors explicitly recognise potential tensions between them in constructing a rationale for their combination. The four categories of research are defined as follows:

- **Abandon:** The tensions between IT and ANT are explicitly recognised and considered serious enough to preclude their combination. The analysis then proceeds by using only one of these approaches as method theory.
- **Ignore:** The tensions between IT and ANT are not explicitly recognised and authors combine elements of both in their analysis without reflecting on this topic.
- **Assimilate:** The tensions between IT and ANT are explicitly recognised but are not considered serious enough to preclude their combination and are subject to relatively limited analysis and reflection.

5 The journals included in our review are Accounting, Auditing and Accountability Journal (AAAJ), Accounting and Business Research (ABR), Accounting, Organizations and Society (AOS), British Accounting Review (BAR), Contemporary Accounting Research (CAR), Critical Perspectives on Accounting (CPA), European Accounting Review (EAR), Financial Accountability and Management (FAM), Journal of Management Accounting Research (JMAR), Management Accounting Research (MAR), and Qualitative Research in Accounting and Management (QRAM).

6 The key concern of Jones and Dugdale (2002) was to map differences in discursive strategies between various genres of research on Activity-Based Costing.
Dramatize: The tensions between IT and ANT are explicitly recognised and subject to extensive analysis and reflection. These reflections constitute the major focus for advancing a contribution to extant accounting research.

In what follows we review the papers falling into each of these categories and discuss the extent to which tensions between IT and ANT are recognised and how authors incorporate (or do not incorporate) reflections on this issue. Our analysis is summarised in Table 2.

Abandon

The two papers falling into the abandon category both recognise some of the key differences and tensions between IT and ANT and then take this as a point of departure for denouncing the former theory and applying the latter in a relatively faithful manner (Mennicken, 2008; Quattrone and Hopper, 2001). The most extensive reflections on these differences and tensions can be found in Quattrone and Hopper (2001). Theirs was an explicit attempt to problematize the ontological conception of change as a linear and predictable process allegedly informing IT. This was seen as representing a modernist conception of social realities as structured by some objectified and clearly identifiable institutions and generating knowable outcomes. Whilst recognising emerging efforts in IT to move away from such a determinate world view and pay greater attention to change as a process, they criticised it for still portraying change as a reasonably comprehensible phenomenon by the actors involved in its instigation. By way of alternative, they proposed the notion of “drift” as a way of emphasising the inherently uncertain and serendipitous paths that ongoing change processes take. Based on this ontological conception of change they pursued a line of inquiry heavily inspired by ANT. This implied the adoption of an over-riding epistemological position that was deliberately open-ended and entailed an explicit lack of a priori theorising to avoid “further dichotomies between theory, researchers and practice” (Quattrone and Hopper, 2001, p. 407). Consistent with such a position the authors also allowed for relevant actants and relationships to emerge from their empirical analysis and applied a methodology producing a view of change processes evolving around “a-centred”, as opposed to clearly delineated, organisations whilst rejecting micro/macro distinctions (as well as any other dualisms) and any notions of change as a phenomenon with a finite end-point.

Similar to Quattrone and Hopper (2001), Mennicken (2008) criticised institutional theorists for subscribing to an overly simplistic view of change. Whilst not making her over-riding conception of reality explicit, she took issue with IT-inspired notions of diffusion and isomorphism for “leav[ing] the struggles underlying standardising processes black-boxed” (Mennicken, 2008, p. 390) and replaced them with the concept of translation. Yet in her empirical analysis of how international auditing standards are translated into evolving audit
practices in Russia she still paid significant attention to how this process was influenced by extant, domestic ideas of auditing. Contrary to “pure” applications of ANT, such as those prescribed by Latour (1987; 2005), she can thus be said to have recognised how translation processes are at least partly embedded in pre-existing social structures. However, consistent with other ontological assumptions underpinning ANT, she eschewed notions of embedded agency and rather focused on the broader range of human and non-human actants influencing the translation process and emphasised the importance of viewing change as an ongoing process. This view was furthered by the adoption of a relatively open-ended epistemological position where a priori theoretical postulates were limited to some fairly generic statements related to standardisation as the empirical domain under examination. This resulted in an emergent view of which actants and relationships came to matter in the translation process and the adoption of a methodology with a primary focus on the actor-networks formed around the audit practices evolving in the focal case firm. Consistent with the methodological practices associated with ANT, distinctions between macro and micro levels of analyses were also avoided (although numerous references were made to the evolving relationships between global standards and local practices) whilst a highly indeterminate view of change “highlight[ing] the undefined and open nature of the standards” (Mennicken, 2008, p. 390) informed the empirical analysis.

Accounting research problematizing IT as a way of justifying the use of ANT thus highlights some of the alleged advantages of the latter approach, such as its capacity to convey a more indeterminate view of change through in-depth analysis of evolving actor-networks. It also recognises some differences potentially generating tensions between these method theories but then avoids such tensions as a result of the one-sided use of ANT as a basis for empirical analysis. This mode of analysis is consistent with the rather a-theoretical approach recommended by leading ANT scholars (Latour, 1987, 2005). However, it begs the questions of which tensions are actually observable in research combining IT and ANT and how researchers have addressed this issue. This is the chief concern in the remainder of our review.

**Ignore**

As noted in the foregoing, research falling into the “ignore” category does not explicitly recognise the tensions potentially emerging from the combination of IT and ANT whilst still pursuing such combinations to a greater or lesser extent. In total, nine papers, or more than half of all the studies identified through our literature search, were classified into this category (Adolfsson and Wikström, 2007; Caron and Turcotte, 2009; Ezzamel et al., 2007; Ezzamel et al., 2012; Gendron and Baker, 2005; Hyndman et al., 2014; Modell, 2005; O’Neill et al., 2015; Thrane and Hald, 2006).

One stream of research within this category draws inspiration from what has come to be known as “Scandinavian institutionalism” (see Boxenbaum and Pedersen, 2009; Czarniawska, 2008). This strand of IT partly evolved through incorporation of key ANT
concepts – especially that of translation – as a means of rendering institutional analyses more sensitive to the continuous and indeterminate nature of organisational change (Czarniawska and Sevon, 1996; Czarniawska and Joerges, 1996). Czarniawska and Sevon (1996) saw this as a necessary corrective to distance IT from its early and, at the time, still predominant concerns with the stabilising effects of isomorphism and propensity to portray the practices evolving in organisational fields as largely homogeneous. In doing so, they foreshadowed a shift in ontology towards a position recognising the possibilities of organisational change as an ongoing phenomenon without jettisoning key aspects of IT, such as the embeddedness of organisations in extant institutions, and propagated a view of change as “a result of a blend of intentions, random events and institutional norms” (Czarniawska and Sevon, 1996, p. 8). However, similar to much prior IT-informed research, the main emphasis was on the translation of ideas in such change processes (see Czarniawska and Joerges, 1996) and greater concerns with materiality and non-human actants only entered into this research programme at a later stage (Czarniawska, 2008).

This lack of attention to non-human actants is strongly reflected in accounting research informed by “Scandinavian institutionalism” and exploring how translation processes unfold in various institutional contexts (Adolfsson and Wikström, 2007; Ezzamel et al., 2007; Gendron and Baker, 2005; Hyndman et al., 2014; Modell, 2005). The predominant focus on the ideational side of translation processes is perhaps understandable given the research topics concerned in these studies, the majority of which explore how new ideas transmitted via public sector reforms influence the institutionalisation of accounting discourses and practices. The exception to this pattern is Gendron and Baker (2005), who pursue a more ANT-inspired analysis of how a network of support for Foucaultian accounting research evolved in the 1980s and how this research programme was stabilised, or institutionalised, over time. However, even in their case, material practices and non-human actants do not loom large. Whilst this failure to incorporate key insights regarding the nature of agency from ANT signifies relatively partial use of this approach, it does not constitute a tension per se as non-human actants do not always play a salient role in translation processes. However, a more serious tension arises from the lack of more focussed attention to the problem of embedded agency in the studies drawing on “Scandinavian institutionalism” (Adolfsson and Wikström, 2007; Ezzamel et al., 2007; Hyndman et al., 2014; Modell, 2005). Similar to Czarniawska and Sevon (1996), these studies mobilise the concept of translation as a means of conveying a view of change as less determinate than has typically been the case in IT. In doing so, they recognise the importance of viewing organisations as embedded in extant social structures but emphasise the need for greater attention to the actors involved in bringing about and resisting institutional change. Yet they do not follow through with this line of argument by engaging in earnest with emerging debates about how human agency is conditioned by extant institutions, such as those featuring in the literatures on institutional logics and institutional work. Instead, their focus on ongoing translation processes and the diverse actors involved in such processes result in a rather actor-centric view of how institutionalisation unfolds.
This neglect of notions of embedded agency is indicative of a tendency to ignore one of the key ontological tensions potentially emerging through the combination of IT and ANT. A similar neglect of tensions is discernible in the epistemological commitments guiding the studies informed by “Scandinavian institutionalism”. With the exception of Gendron and Baker’s (2005) ANT-inspired analysis, these studies conform relatively closely to the epistemology typically associated with IT by advancing reasonably comprehensive theoretical frameworks in a deductive manner and incorporating the notion of translation into such frameworks without reflecting further on the rather different approaches to theorising associated with IT and ANT. In contrast to ANT, most of the studies informed by “Scandinavian institutionalism” also entail largely pre-defined assumptions about the units of analysis as the relevant actors and/or the boundaries around the organisational fields under investigation are clearly delineated prior to the empirical analysis. This neglect of the differences between IT and ANT is also reflected in the methodological practices adopted in these studies. Whilst maintaining a relatively open-ended view of how the process of institutionalisation unfolds they all make a clear distinction between the macro and micro levels of analysis and occasionally take such distinctions as a starting point for tracking translation processes across different levels of analysis (e.g., Ezzamel et al., 2007; Hyndman et al., 2014). Also, even though the majority of the studies inspired by “Scandinavian institutionalism” pay careful attention to the process of change (e.g., Adolfsson and Wikström, 2007; Gendron and Baker, 2005; Modell, 2005), this focus is sometimes limited by the heavy reliance on archival data reflecting the outcomes rather than the ongoing and indeterminate nature of such processes (Hyndman et al., 2014). These methodological practices differ from the insistence on dissolving micro/macro distinctions and studying translation as a highly fluid, never-ending process associated with ANT and the concomitant tensions between IT and ANT receive little explicit attention.

Going beyond research inspired by “Scandinavian institutionalism”, we see a similar tendency for the paradigmatic tensions associated with the combination of IT and ANT to be amplified by the research methods employed. Two examples of this can be found in the studies by Caron and Turcotte (2009) and O’Neill et al. (2015), which both relied exclusively on archival data (published accounting reports) to analyse the discourses surrounding various accounting reporting initiatives. At an ontological level, both studies can be said to try to address limitations such as those identified above by discussing how extant structures condition the propensity for embedded agency (in the form of path dependencies and institutional constraints on translations) and recognising the capacity of material accounting practices to constitute non-human actants. Conceptually, they also place relatively balanced emphasis on the possibilities of change and stability. However, to facilitate the analysis of archival data they adopt an epistemological position relying heavily on deductive theorising and follow methodological practices, pivoting on content analysis of documents, that shed little light on the processes through which notions of embedded agency are played out and how a broader range of human and non-human actants are brought together to affect the process of institutionalisation. This effectively brackets the understanding of change as a more indeterminate process and both studies end up emphasising the constraining role of institutions. Caron and Turcotte (2009, p. 291) conclude that the limited propensity of
adopting organisations to comply with new reporting rules was due to path dependencies reinforced by institutionalised practices and that this may cause emerging discourses to become “institutionalised prematurely”. Similarly, O’Neill et al. (2015, p. 195) observe that the influence of extant institutions on the contents of reports severely constrains the outcomes of translation processes and give rise to a state “where alternatives become unthinkable and thus inaccessible”. Both conclusions testify to a view of change as a highly constrained phenomenon with a definite end-point that is at odds with ANT as well as more recent advances in IT such as the literature on institutional work. But neither Caron and Turcotte (2009) nor O’Neill et al. (2015) reflect on how their relative lack of attention to deeper change dynamics may have led them to draw these conclusions. The methodologically induced tensions between IT and ANT thus remain unaddressed.

However, we also find evidence of tensions being lessened by more limited attempts to combine IT and ANT. One example of this is Ezzamel et al. (2012) who closely followed the institutional logics approach whilst complementing this with notions of performativity to enhance our understanding of how budgeting is made to act as a material practice and how this gives rise to anticipated and unintended consequences. Consistent with the institutional logics approach, there is evidence of an ontological position recognising how human agency is conditioned by the interplay between extant and emerging logics and how this conditions the possibilities of change. Budgets were seen as an important mediator between such logics and thereby came to exercise relatively strong influence on evolving organisational practices. Whilst this is consistent with ANT-inspired notions of how non-human actants come to matter, Ezzamel et al. (2012) were careful not to detach this phenomenon from the institutional context in which budgets were embedded. This shows how concerns with materiality and the role of non-human actants can be incorporated into institutional analyses without abandoning a view of agency as an institutionally embedded phenomenon. In advancing such a view, however, Ezzamel et al. (2012) make very limited references to ANT (with the exception of Callon, 1998) and their epistemological commitments and methodological practices largely follow those associated with IT. Taken together, this can be said to have reduced the potential tensions between IT and ANT although Ezzamel et al. (2012) paid little explicit attention to this topic.

A similar example of tensions being alleviated by limited combinations of IT and ANT can be found in Thrane and Hald (2006). In contrast to Ezzamel et al., (2012), theirs was a study dominated by ANT7 and exploring how accounting is implicated in establishing boundaries around relationships between customers and suppliers. As a basis for their analysis, Thrane and Hald (2006) explicitly subscribed to the relational and constructivist view of reality typical of ANT and paid extensive attention to accounting as a non-human actant and the indeterminate nature of change. The engagement with IT was marginal and confined to justifying the use of the notion of “fields” as a way of delineating the system of relationships under examination. However, in doing so, they explicitly rejected the notion that

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7 Thrane and Hald (2006) also juxtaposed ANT to other theoretical perspectives representing rational and symbolic approaches to boundary setting. However, this part of their study is of lesser relevance for our analysis.
“institutions are the primary governance mechanism” (Thrane and Hald, 2006, p. 295) and followed the epistemological commitments and methodological practices associated ANT relatively closely.

The widespread tendency in accounting research combining IT and ANT to ignore the tensions associated with doing so may be seen as a rather worrying lack of reflexivity on the challenges involved in mixing method theories with distinct paradigmatic origins. Even though such tensions are occasionally lessened by the limited reliance on one theory as a complement to the other, it is perhaps a sign of the eclecticism which critics of especially IT have increasingly cautioned against (Cooper et al., 2008; Modell, 2015a; Willmott, 2011). However, the tendency to borrow selectively from other method theories is not limited to IT-dominated studies in accounting. Indeed, we find at least some accounting studies dominated by ANT borrowing concepts from IT without reflecting further on the paradigmatic implications of doing so (Gendron and Baker, 2005; Thrane and Hald, 2006). As explicated below, this tendency to ignore one of the key epistemological tensions associated with the combination of IT and ANT is also evident in papers entailing greater reflection on the paradigmatic challenges of pursuing such research.

**Assimilate**

Papers falling into the “assimilate” category include review articles debating *inter alia* the possibilities of combining IT and ANT (Lounsbury, 2008; Modell, 2009) as well as two empirical studies pursuing a similar line of inquiry (Arena et al., 2010; Hopper and Major, 2007). In contrast to the two previous categories of research, the papers classified into this group are all dominated by IT and entail more explicit recognition of especially the ontological differences vis-a-vis ANT. However, the extent to which this recognition is accompanied by deeper reflection on the paradigmatic tensions resulting from the combination of the two method theories varies somewhat.

Starting with Lounsbury’s (2008) seminal paper of how accounting practices may be seen as embedded in different institutional logics, we see evidence of an attempt to propagate the use of ANT as a complementary means of studying such practices without abandoning IT as a dominant method theory. Consistent with IT, Lounsbury (2008) explicitly subscribed to a social constructivist ontology recognising how reality is structured by extant and emerging logics and how this conditions the possibilities of human agency and the propensity for institutional change and stability. Lounsbury (2008, p. 357) recognised that such an ontological position is “seemingly at odds” with the more indeterminate view of change in ANT. Yet he argued that the latter view is “easily incorporated” (Lounsbury, 2008, pp. 357) into an institutional framework by invoking Meyer and Rowan’s (1977) observation that change is continuously occurring within the confines of institutional constraints and often gives rise to a degree of decoupling between evolving practices and institutional norms. However, his emphasis on decoupling seems somewhat discordant with a view of practices and human agency as embedded in diverse institutional logics and reinforces the view that
research following such a position is not easily reconciled with the highly actor-centric view of accounting practices as fluid and largely dis-embedded from extant social structures in ANT. Lounsbury’s (2008) efforts to combine IT and ANT may thus be seen as an attempt to bracket, rather than resolving, the ontological tensions between the two perspectives. Similar tendencies to bracket ontological tensions are discernible in Modell’s (2009) extension of Lounsbury’s (2008) argument to the topic of performance measurement and management. Adopting a similar ontological position, he mobilised ANT as a means of nurturing greater attention to performance measurement as a material practice and a more indeterminate view of change. In doing so, he did not see the social constructivist ontology of IT as an insurmountable barrier to incorporation of ANT-inspired insights although he recognised the distinct paradigmatic origins of the two method theories. Also, neither Lounsbury (2008) nor Modell (2009) dwelled much on the epistemological and methodological tensions associated with combining IT and ANT and rather advocated research approaches capitalising on emerging developments in the former theory. Their reflections on the paradigmatic tensions associated with such research were thus relatively limited.

Somewhat greater (but varying) reflections on the paradigmatic tensions associated with combining IT and ANT can be found in the empirical studies falling into the “assimilate” category. Both Hopper and Major (2007) and Arena et al. (2010) paid explicit attention to the ontological differences between IT and ANT and sought to overcome the concomitant tensions resulting from their combination but drew somewhat different conclusions regarding the implications for their analyses. Hopper and Major (2007) recognised the diverging, over-riding views of reality in IT and ANT whilst leaning more heavily towards the former by taking the isomorphic pressures embedded in institutional structures as a starting point for their analysis. However, their key justification for using ANT as a complement to IT was to embrace a more indeterminate view of change and they paid little attention to notions of embedded agency. By contrast, Arena et al. (2010, p. 662) sought to distance themselves from concerns with isomorphism to pay greater attention to intra-organisational change dynamics but recognised that such dynamics need to be studied “in an institutional light” as they are conditioned by institutional logics. They also paid explicit attention to the varying possibilities of embedded agency and conceived of organisational change as an “embedded process of translation” (Arena et al., 2010, p. 672). Taken together, this testifies to somewhat greater recognition of the need to reconcile ANT-inspired notions of change with an institutional conception of the role of social structures in order not to jettison the idea of embedded agency. However, the epistemological commitments and methodological practices adopted in the two studies provide further evidence of the difficulties in combining concerns with institutional embeddedness with ANT-inspired notions of change as a more indeterminate process. Whilst both Hopper and Major (2007) and Arena et al. (2010) sought to incorporate key insights from ANT, such as the need to “follow the actors” and study the translation of accounting practices within organisations as a relatively open-ended phenomenon, they differ significantly in terms of the attention paid to the process of change. Whereas Hopper and Major (2007) conducted a careful longitudinal analysis to do the indeterminacy of change full justice Arena et al. (2010) paid less attention to this topic as a result of adopting a comparative, cross-sectional case study approach to examine how
differences in institutional embeddedness give rise to practice variations. Hopper and Major (2007) also advanced somewhat deeper reflections on the need to adopt an open-ended, longitudinal approach to avoid the tendency in IT to conceive of relevant actors and relationships as largely predefined analytical entities.

The papers falling into the “assimilate” category thus pay some attention to the paradigmatic tensions associated with combining IT and ANT. However, similar to much research in the “ignore” category, the fundamental epistemological rationale for doing so has largely escaped deeper reflection. The papers in this category mainly mobilise ANT as a corrective to the lack of attention to change as a more indeterminate phenomenon in IT but do not recognise their diverging epistemological commitments insofar as theory development is concerned. Rather, ANT concepts, such as materiality and translation, are incorporated into IT as a means of enhancing our understanding of change in accounting practices without further reflection on such differences.

Dramatize

The final category of papers includes more extensive reflections on the paradigmatic tensions associated with combining IT and ANT and places relatively balanced emphasis on both method theories as a basis for empirical analysis. Only two papers (How and Alawattage, 2012; Rautiainen and Scapens, 2013) fall into this category. As explicated below, these papers also differ significantly in terms of how they approach the combination of IT and ANT and deal with paradigmatic tensions.

How and Alawattage (2012) adopted an explicitly eclectic approach to explain how new accounting practices introduced through the implementation of an enterprise resource planning system remained decoupled from operations. In doing so, they applied IT and ANT separately to offer two complementary accounts of this phenomenon and made no efforts to integrate concepts from one method theory into the other. Consistent with the diverging ontological positions underpinning these theories, IT-inspired notions of decoupling as a stable state embedded in extant institutional structures were juxtaposed to an ANT-inspired account of how ongoing translation processes and negotiations between various actors contributed to maintain this state. The need for such an analytical approach was justified by the insight that the two method theories harbour very different, and not easily reconcilable, views of how organisational change and decoupling are brought about. The ontological tensions between the two perspectives can thus be said to have been recognised and then avoided by the choice of analytical approach. This was facilitated by the adoption of a largely inductive, open-ended epistemological position which allowed two separate analyses to emerge from empirical data and which, according to the authors, “extends the theorisation of decoupling” (How and Alawattage, 2012, p. 404). This may have lessened the epistemological and methodological tensions associated with combining IT and ANT. However, the authors did not offer any deeper reflections on this topic and it is thus difficult
to discern whether they recognise the more fundamental epistemological difference between the two method theories regarding theory development.

In contrast to How and Alawattage (2012), Rautiainen and Scapens (2013) integrated insights from IT and ANT into a coherent framework and offered what we believe are the most exhaustive reflections on the paradigmatic tensions associated with such research to date. Referencing several of the earlier attempts to combine IT and ANT (Hopper and Major, 2007; Lounsbury, 2008; Modell, 2009) they sought to take stock of these advances whilst extending their analysis to the implementation of an enterprise resource planning system. In doing so, they advanced relatively extensive reflections on the ontological differences between IT and ANT. Even though the ontological position guiding their analysis leaned towards an IT-inspired conception of translation processes as constrained by extant institutional structures they clearly recognised the potential tensions associated with such a position and explained in some detail how it needs to be reconciled with a more indeterminate view of change. Similarly, they recognised some of the key modifications of IT necessary to reconcile it with the epistemological and methodological principles of ANT such as the need to nurture an open-ended approach geared towards following the actors involved in ongoing translation processes and relaxing strict distinctions between the micro and macro levels of analysis. In contrast to the other papers included in our review, Rautiainen and Scapens (2013) also offered extensive epistemological reflections on when the combination IT and ANT may be most useful and when they should be used in isolation from each other. They also cautioned against the “danger of over-theorizing events” (Rautiainen and Scapens, 2013, p. 121) when combining the two method theories. However, the more fundamental difference in epistemological commitments pertaining to theory development in IT and ANT remained unrecognised and unaddressed. Similar to most of the other papers under review, Rautiainen and Scapens (2013) thus left IT’s compatibility with ANT unquestioned.

Discussion

Intrigued by the emerging trend to combine IT and ANT in accounting research, we investigated whether or not it gives rise to paradigmatic tensions and if so, how scholars have dealt with such tensions in practice. Our analysis of the two method theories’ ontological, epistemological and methodological commitments suggested that they differ from each other in several respects. Given such significant paradigmatic differences, which might be taken as an indication of incommensurability, we expected the combination of IT and ANT in a single study to generate considerable tensions. We then reviewed extant accounting research combining IT and ANT to find out the extent to which these tensions are recognised and how authors incorporate (or do not incorporate) reflections on this issue.

Our review reveals a relatively widespread lack of reflexivity on the paradigmatic differences and tensions between these method theories. This is especially manifest in the predominance of studies falling into the “ignore” category. Many of these IT-dominated studies borrow key concepts, such as translation, and draw important methodological inspiration from ANT in an
attempt to foster a more indeterminate view of institutional change that is sensitive to the role
of human agency. However, they pay little attention to the diverging ontological assumptions
of IT and ANT and make highly selective and, sometimes, very limited use of ANT as a
complement to IT. Somewhat greater attention to the challenges of reconciling key
ontological assumptions of IT, such as the need to recognise the enduring influence of pre-
existing social structures and the institutionally embedded nature of agency, with those of
ANT are discernible in studies falling into the “assimilate” category. But more extensive
reflections on this topic coupled with elaborate and nuanced considerations of the
epistemological and methodological implications of combining IT and ANT are still rare. As
evidenced by the two studies falling into the “dramatize” category, this has also resulted in
rather different recommendations as to how such research should progress. How and
Alawattage (2012) advocated the use of IT and ANT as separate analytical approaches to
shed complementary light on particular accounting practices whilst avoiding the paradigmatic
tensions associated with attempts to integrate them in a more or less selective manner. By
contrast, Rautiainen and Scapens (2013) advanced a more contingent view of when such
separation may be justifiable and when empirical analyses may benefit from closer
integration between IT and ANT.

Some recent progress has thus been made in dealing with the paradigmatic tensions between
IT and ANT. Yet a striking feature of the accounting studies under review is the prevailing
silence regarding the fundamental epistemological issue of whether the modes of theorising
associated with the two approaches are indeed compatible. The vast majority of these studies
are dominated by IT although they rely, to varying degrees, on ANT to address some of IT’s
conceptual and methodological shortcomings. Not even where more balanced emphasis is
placed on IT and ANT and the tensions between them receive more extensive attention do the
authors address the question of whether this is consistent with the rather a-theoretical
propensity of ANT to mainly describe evolving actor-networks without fitting the data into a
theoretical framework. It may be argued that this feature is not unique to IT-inspired
accounting research and that a similar blend of insights from diverse method theories,
enriching our understanding of accounting as an evolving social practice, is commonplace in
many genres of inter-disciplinary accounting research (see e.g., Hoque et al., 2013; Modell,
2015b; Roslender and Dillard, 2003). However, the problem is exacerbated by the deliberate
ambition of leading ANT scholars, such as Latour (1987, 2005), to distance it from
conventional social theory by insisting on its use as a stand-alone approach to empirical
research which defies cumulative theory development. Such an ambition is indeed discernible
in the accounting studies falling into the “abandon” category, which only engage with IT as
an object of criticism and then faithfully follow the epistemological and methodological
principles associated with ANT. A literal reading of Latour would thus seem to preclude
further research aimed at rapprochement and closer integration between IT and ANT. Yet not
all ANT-inspired accounting research has stayed altogether true to such “purist”
interpretations as we have identified at least two studies which are dominated by ANT whilst
selectively incorporating theoretical concepts from IT (Gendron and Baker, 2005; Thrane and
Hald, 2006).
Given the growth in research combining ANT with IT, it is worth pondering how such research may be further developed and advance our understanding of accounting practices. In this context it is useful to note that abiding by ANT’s a-theoretical underpinnings necessarily leads to an asymmetrical situation where it is only IT-informed research that can borrow elements from ANT and change to accommodate ANT principles. Moreover, as demonstrated by our literature review, the main impetus for combining IT and ANT has come from the institutional side and we expect this trend to continue. Hence we concentrate the remainder of our discussion to the issue of how IT-inspired accounting research incorporating elements of ANT may progress rather than vice versa. In what follows, we highlight three particular areas where we see further scope for rapprochement between IT and ANT and discuss how this may contribute to institutional accounting research.

First, we believe institutional analyses may gain from incorporating a stronger emphasis on materiality and the roles of accounting techniques and practices as a non-human actor. Although IT has traditionally paid little attention to the material (as opposed to the ideational) dimension of institutions, there have been recent calls for making this a more explicit part of research on institutional logics (Jones et al., 2013) as well as institutional work (Lawrence et al., 2013). Similar calls have emerged in the accounting literature (e.g., Modell, 2009) and we see some evidence of more explicit attention being paid to the interplay between institutional structures and the roles of accounting as a non-human actor in empirical studies (see especially Ezzamel et al., 2012). However, much work remains to be done to explore this interplay and we believe that accounting is a particularly fertile field of research, which may make important contributions to the broader IT literature as it shifts its attention to the material dimension of institutions. The broader accounting literature inspired by ANT provides ample evidence of how accounting assumes a powerful role as an actant and how this is implicated in complex, evolving networks constituted by human as well as other categories of non-human actors (see Justesen and Mouritsen, 2011; Lukka and Vinnari, 2014). Incorporating such a focus in institutional analyses may offer deeper insights into the processes through which broader constellations of actors involved in the process of institutionalisation emerge and how the interplay between them gives rise to unanticipated and perhaps less stable outcomes than has been the case in much IT-informed research. This requires researchers to adopt a relatively open-ended analytical focus and a conception of institutionalisation as an indeterminate process, as is the case in much research on institutional work. To do such research full justice, however, researchers may need to heed Zilber’s (2013) call for closer scrutiny of the ongoing and often “messy” work involved in the process of institutionalisation as it unfolds in real time instead of mainly relying on retrospective, historically informed analyses. Research procedures inspired by ANT, such as the need to closely follow the actors, may prove particularly valuable in this regard as they draw attention to the minutiae of the institutional work conducted by multiple actors and how this facilitates and obstructs collective agency.

Second, we believe the open-ended and indeterminate view of institutionalisation may be furthered by replacing the conception of organisational fields as largely synonymous with
existing areas of social life, such as particular societal sectors, with a stronger focus on fields as more emergent entities structured around particular issues. Such issue-based definitions of organisational fields, pivoting on the evolving constellations of actors with an interest in the often contested issues at stake in institutional processes, are gaining ground in IT (Hoffman, 1999; Wooten and Hoffman, 2008) but have only recently started to inform empirical accounting research (see Chiwamit et al., 2014; O’Sullivan and O’Dwyer, 2015). Issue-based fields may transcend particular societal sectors and are similar to the notion of actor-networks evolving around specific “matters of concern”, which are, as mentioned further above, complex, uncertain and disputed affairs resisting stabilization.

This reinforces the shift away from a view of organisational fields as relatively homogeneous and stable spheres of social life to more fragmented and contested entities that are potentially in flux (Greenwood et al., 2011; Wooten and Hoffman, 2008). It also relaxes the distinction between the macro and micro domains of organisational fields as largely predefined levels of analysis. This is so as it treats the institutionalisation of particular practices as an emergent phenomenon that is not predetermined by ready-made templates diffusing from higher to lower levels, but as a process where (often competing) practices endorsed by various actors may emerge at any level whilst gradually coalescing around particular issues and giving rise to more firmly institutionalised templates. Such templates may in turn form the centre of new fields but what emerges as the macro-level order to which actors within the field need to adapt, may only be evident after some time (see e.g., Chiwamit et al., 2014; Hoffman, 1999). This offers a less linear and orderly view of how particular practices are institutionalised than that dominating institutional accounting research. Much of this research has subscribed to a view of accounting techniques and practices as relatively ready-made objects that diffuse across particular populations of organisations and are then adapted to fit individual organisations (Dillard et al., 2004; Modell, 2009) and has only recently started to encompass more detailed, multi-level studies that pay closer attention to how institutionalisation unfolds as a recursive process across various levels of organisational fields (e.g., Guerreiro et al., 2015; Modell et al., 2007; Moore, 2013). Further research of this kind may bring institutional accounting research closer to ANT and some progress to this end has already been made (Hopper and Major, 2007). However, to do such research full justice, the use of ANT to follow the actors needs to be extended to consider all relevant actors rather than being confined to specific levels of analysis8 as is the case in Hopper and Major (2007).

Finally, continued rapprochement between IT and ANT may add impetus to the emerging efforts to extend institutional analyses beyond their traditional pre-occupation with social elites and question the power exercised by such elites. This follows from the more open-ended view of which actors matter in the process of institutionalisation and the adoption of a methodological approach that draws attention to how the dynamic interplay between them shapes power relations. By closely following the actors and examining how power is continuously negotiated, institutional analyses may steer away from a view of power as a static concept “belonging” to certain actors to explore how power relations change and are

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8 From the IT-perspective, it would still be important to consider this as a “nested” phenomenon where emerging fields are embedded in larger fields.
being stabilised over time. The prospects of nurturing such a relational view of power were one of the key aspects that first attracted institutional theorist to ANT (see Czarniawska and Sevon, 1996; Lawrence and Suddaby, 2006), but as a distinct theme of research it does not feature extensively in the accounting studies reviewed in this paper (but see Modell, 2005). By adopting such a perspective institutional accounting research may also probe into how power relations with strongly oppressive effects may be altered and thereby incorporate a more critical dimension. In recent years, IT has come under increasing attack for lacking critical, or emancipatory, zeal (e.g., Cooper et al., 2008; Modell, 2015a; Munir, 2015; Willmott, 2011, 2015). It is possible that continued rapprochement between IT and ANT may help to address this issue by nurturing a broader research perspective that draws attention to the plight of disenfranchised constituencies and how changing power relations may give rise to unanticipated, but potentially significant, opportunities for emancipation. However, it is worth recalling that ANT has been subject to similar criticisms for lacking explicit critical intent as a result of being embedded in a politically conservative epistemology (e.g., Dempsey, 2010; Wainwright, 2005; Whittle and Spicer, 2008). Even though this may be changing (see e.g., Alcadipani and Hassard, 2010), the emergence of a more emancipatory research agenda should not be seen as an “automatic” outcome of the combination of IT and ANT. For this to materialise on a larger scale, much greater reflexivity regarding the epistemological priors of both method theories is required and accounting scholars would need to consider methodological questions of how such research may entail effective, critical interventions.

The discussion above illustrates how continued rapprochement between IT and ANT as method theories in accounting may make significant contributions to emerging research themes within the former theory. In pursuing such rapprochement, however, it is vital not to jettison the key ontological assumptions of IT. Of particular importance is the need to preserve a strong sense of the enduring influence of extant social structures on the institutionalisation of novel accounting practices and the institutionally embedded nature of agency. As we have seen, there is some emerging consensus about these ontological assumptions as lying at the heart of the broader IT project. Yet our review of extant accounting research combining IT and ANT shows that they are not always clearly reflected in the research practices evolving in this body of literature. Instead, there is a tendency, especially in research inspired by “Scandinavian institutionalism”, to adopt a highly actor-centric view of institutionalisation whilst paying scant attention to the problem of embedded agency. In other instances, we see concerns with such issues being compromised by the use of research methods that reinforce a rather structuralist and determinate view of institutionalisation despite references being made to ANT concepts such as translation and the roles of non-human actors (e.g., Caron and Turcotte, 2009; O’Neill et al., 2015). Some recent advances have remained truer to the ontological foundations of IT by emphasising the nature of translation processes as an institutionally constrained, or embedded, phenomenon (Arena et al., 2010; Rautiainen and Scapens, 2013). However, further thought is required to how the influence of extant institutions may be conceptualised in relation to the three areas of rapprochement identified above. Insofar as the role of accounting as a non-human actor is concerned we see some merit in the approach taken by Ezzamel et al. (2012), who examined
how an existing budgeting system mediated the work of human actors embedded in extant and emerging institutional logics and assumed a performative role. An alternative approach, through which deeper insights into how institutional structures shape emerging accounting practices may be obtained, would be to examine how the templates underpinning institutional logics are inscribed (cf. Latour, 1987) in such practices and thus condition their roles as a non-human actor. Similarly, research adopting an issue-based view of organisational fields and exploring the evolving power relations between multiple actors would need to pay closer attention to how these phenomena are conditioned by extant social structures. This may be accomplished by conceiving of emerging fields as nested in broader, pre-existing fields structured around other, but related, issues (cf. Lawrence and Suddaby, 2006) and by examining the specific institutional logics in which various actors are embedded and how this affects their strategies as they vie for power in such fields. The latter may also require more careful distinctions between the objectified dimensions of institutions, such as those manifest in institutional logics, and how individual actors relate to them as a result of also being embedded in more subjective, individually held values and beliefs that may or may not be in harmony with such logics (cf. Modell, 2015a).

Conclusions

In addition to normative calls for combining IT and ANT in organizational and accounting research, empirical studies integrating the two method theories have also begun to emerge. Considering the historical evolution of IT and ANT and their rather divergent views of theory development, this trend raises the question of whether researchers have done so in a paradigmatically consistent and justifiable manner or whether it gives rise to paradigmatic tensions detracting from the possibilities of meaningful theoretical syntheses. As this phenomenon has thus far attracted little scholarly attention, there is a distinct need for further, systematic analyses.

The purpose of this paper was to assess whether the integration of IT and ANT as method theories in accounting research gives rise to paradigmatic differences and tensions and if so, how scholars have addressed them in research practice. This question was addressed through a comparison of the key paradigmatic premises of IT and ANT and a review of extant accounting research combining these perspectives.

Our analysis of the ontological, epistemological and methodological commitments of IT and ANT indicates that they differ from each other in several regards, giving rise to paradigmatic tensions. The most significant tensions relate to the two perspectives’ diverging ontological conceptions of the nature of social structures and agency and their very different epistemological views of the role of theory. If applied literally, the commitment of ANT to avoid a priori and cumulative theorising is indeed incommensurable with the normal science aspirations characterising IT. This results in an asymmetrical situation where combining IT and ANT in a single study can only be considered legitimate from the perspective of IT; in
other words, only IT-dominated research can incorporate elements of ANT, but not vice versa without complications.

Our review of extant accounting research combining IT and ANT was conducted to ascertain how authors have dealt with the paradigmatic tensions in practice. Based on the discursive strategies that author(s) employed to justify the combination or problematize the relationship between them, we divided the analysed papers into four categories: abandon, ignore, assimilate and dramatize. In the majority of the studies, the tensions between IT and ANT have simply been ignored with little or no explicit discussion of the associated problems. This may be seen as a rather worrying lack of reflexivity on the challenges involved in mixing method theories with distinct paradigmatic origins.

Two implications arise from our study. First, if further rapprochement between IT and ANT as method theories in accounting research is considered desirable, this can only take place via IT incorporating elements of ANT. In this regard, IT-based analyses could benefit from paying greater attention to materiality and non-human actors; adopting an issue-based view of organizational fields; and fostering a relational, dynamic perspective on power. In pursuing such rapprochement, however, it is vital not to discard the key ontological assumptions of IT. Of particular importance is the need to preserve a strong sense of the enduring influence of extant social structures on the institutionalisation of novel accounting practices and the institutionally embedded nature of agency.

Secondly, and more importantly, there is a need for accounting researchers to practice greater reflexivity when considering the combination of two theoretical perspectives with diverging paradigmatic premises. Otherwise they run the risk of producing an incommensurable mix of theories of only limited scholarly value.

References


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Table 1. Comparison of the key premises of institutional and actor-network theories.

<table>
<thead>
<tr>
<th></th>
<th>Institutional theory</th>
<th>Actor-network theory</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Ontological foundations</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Over-riding conception of reality.</td>
<td>The real is socially constructed, but realist dimension also recognised as relational and constructed</td>
<td>While the real emerges in a relational and constructed</td>
</tr>
<tr>
<td>Conception of social structures</td>
<td>Structures exist as socially real entities that are at least partly independent of human agency at specific points in time.</td>
<td>The notion of structure as typically defined has no role in ANT.</td>
</tr>
<tr>
<td>-------------------------------</td>
<td>-------------------------------------------------------------------------------------------------</td>
<td>-------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Conception of agency.</td>
<td>Human agency is institutionally embedded and conditioned by historically contingent structures. Increasing attention to collective agency.</td>
<td>Agency is not embedded. Human and non-human entities (actants) continuously interact and both have the capacity to exercise agency.</td>
</tr>
<tr>
<td>Conception of change and stability.</td>
<td>Change is a relatively exceptional and episodic state and is always conditioned by extant institutions.</td>
<td>Change is ubiquitous and intertwined with the on-going transformation of actor-networks. Stability seen as a temporary and fragile state.</td>
</tr>
</tbody>
</table>

### Epistemological commitments

<table>
<thead>
<tr>
<th>Over-riding epistemological position.</th>
<th>Empirical/inductive, but also entailing important deductive element.</th>
<th>Highly empirical, being open to all possibilities.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Role of theory</td>
<td>Normal science view aimed at continuous theoretical refinement and extensions.</td>
<td>Theory has no role in ANT itself, making the analysis indeterminate.</td>
</tr>
<tr>
<td>Prior assumptions about units of analysis.</td>
<td>Relatively fixed and clearly demarcated a priori assumptions about which actors matter, although the exact nature of institutional environments can only be discovered through empirical investigation.</td>
<td>Deliberately open-ended about which actants and relationships matter in the formation of actor-networks.</td>
</tr>
</tbody>
</table>

### Methodological practices

<table>
<thead>
<tr>
<th>Main unit of analysis</th>
<th>Organisational fields constituted by specific populations of organisations or societal sectors.</th>
<th>Associations formed within networks of human and non-human actants often crossing formal organisational boundaries.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Role of micro/macro distinctions</td>
<td>Maintaining a clear analytical distinction between micro- and macro-level processes of institutionalisation but increasingly seeking to link the two through multi-level studies.</td>
<td>Actively seeking to dissolve and transcend notions of “micro” and “macro” as analytically separate domains.</td>
</tr>
<tr>
<td>Methodological view of change as determinate/indeterminate.</td>
<td>Traditionally emphasising the outcomes of institutionalization but increasingly recognising its role as a more indeterminate process.</td>
<td>Underscoring indeterminacy of change processes observed.</td>
</tr>
</tbody>
</table>
Table 2. Summary of the review of accounting studies combining IT and ANT.

<table>
<thead>
<tr>
<th>Study, journal and dominant method theory.</th>
<th>Ontological assumptions</th>
<th>Epistemological commitments</th>
<th>Methodological practices</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Abandon</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Quattrone and Hopper (2001), MAR, ANT dominant.</td>
<td>Rejecting modernist views of social realities as structured by objectified institutions.</td>
<td>Extant structures downplayed.</td>
<td>No attention to embedded agency whilst non-human actants recognised.</td>
</tr>
<tr>
<td><strong>Ignore</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gendron and Baker (2005), EAR, ANT dominant</td>
<td>Not made explicit.</td>
<td>No attention to extant structures, but dependence of focal network on supporting networks recognised.</td>
<td>No explicit attention to embedded agency or non-human actants.</td>
</tr>
<tr>
<td>Author(s)</td>
<td>Methodology</td>
<td>Attention to extant structures</td>
<td>Attention to embedded agency</td>
</tr>
<tr>
<td>-----------</td>
<td>-------------</td>
<td>-------------------------------</td>
<td>-----------------------------</td>
</tr>
<tr>
<td>Modell (2005), AAAJ, IT dominant</td>
<td>Not made explicit.</td>
<td>Not made explicit.</td>
<td>No explicit attention to embedded agency or non-human actants.</td>
</tr>
<tr>
<td>Thrane and Hald (2006), MAR, ANT dominant.</td>
<td>Explicit subscription to relational and constructivist ontology.</td>
<td>Some attention to pre-existing structural boundaries but main emphasis on how these are transformed.</td>
<td>No attention to embedded agency.</td>
</tr>
<tr>
<td>Adolfsson and Wikstrom (2007), FAM, IT dominant</td>
<td>Not made explicit.</td>
<td>Attention to extant structures in the form of existing identities.</td>
<td>No explicit attention to embedded agency or non-human actants.</td>
</tr>
<tr>
<td>Ezzamel et al. (2007), AAAJ, IT dominant</td>
<td>Not made explicit.</td>
<td>Extant structures recognised but main emphasis on creation of new institutions.</td>
<td>No explicit attention to embedded agency or non-human actants.</td>
</tr>
<tr>
<td>Authors and Journal</td>
<td>Explicitness</td>
<td>Approach to Extant Structures and Their Effects on Path Dependencies/Creation</td>
<td>Conceptual Framing Recognising Both Empirical Analysis and Stabilising Role of Institutions</td>
</tr>
<tr>
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<tr>
<td>Caron and Turcotte (2009), AAAJ</td>
<td>Not made explicit</td>
<td>Extant structures and their effects on path dependencies/creation recognised</td>
<td>Some conceptual attention to embedded agency and materiality but not receiving empirical attention</td>
</tr>
<tr>
<td>Ezzamel et al. (2012), AOS</td>
<td>Not made explicit</td>
<td>Interplay between extant and emerging structures in the form of institutional logics recognised</td>
<td>Explicit attention to agency as embedded in institutional logics and the performative role of budgets as material practice</td>
</tr>
<tr>
<td>Hyndman et al. (2014), CPA</td>
<td>Not made explicit</td>
<td>Attention to extant structures in the form of sediments.</td>
<td>No explicit attention to embedded agency or non-human actants.</td>
</tr>
<tr>
<td>Authors</td>
<td>Explicitness</td>
<td>Institutional Structures and Isomorphism</td>
<td>Conceptual Framing</td>
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<tr>
<td>O’Neill et al. (2015), AAAJ</td>
<td>Not Made Explicit</td>
<td>Strongly Dominant</td>
<td>Some Conceptual Attention to Embedded Agency and Materiality</td>
</tr>
<tr>
<td>Hopper and Major (2007)</td>
<td>EAR, IT Dominant</td>
<td>Diverging Ontologies in IT and ANT Recognised</td>
<td>Attention to Extant Structures as a Source of Isomorphism</td>
</tr>
<tr>
<td>Lounsbury (2008)</td>
<td>AOS, IT Dominant</td>
<td>Explicit Subscription to Social Constructivist Ontology</td>
<td>Emphasis on Interplay Between Extant and Emerging Institutional Logics</td>
</tr>
<tr>
<td>Model (2009), FAM, IT dominant</td>
<td>Explicit subscription to social constructivist ontology.</td>
<td>Emphasis on interplay between extant and emerging institutional logics.</td>
<td>Explicit attention to embedded agency and non-human actants.</td>
</tr>
<tr>
<td>Arena et al. (2010), AOS, IT dominant</td>
<td>Explicit re-interpretation of the ontology of ANT to recognise pre-existing structures.</td>
<td>Explicit attention to institutional embeddedness</td>
<td>Attention to “embedded processes of translation”. Some attention to material practices but little attention to their performativity.</td>
</tr>
<tr>
<td>How and Alawattage (2012) CPA, balanced emphasis on IT and ANT.</td>
<td>Separation of IT and ANT signifying recognition of different ontologies.</td>
<td>Recognition of extant institutional structures as part of IT analysis.</td>
<td>No attention to embedded agency. Extensive discussion of materiality/performativity as part of ANT analysis.</td>
</tr>
</tbody>
</table>

**Dramatize**
| Rautiainen and Scapens (2013), *QRAM*, balanced emphasis on IT and ANT. | Extensive discussion of differences in ontology. | Extant institutional structures seen as constraints on translation processes. | Embedded agency implicit in notion of “constrained transformations”, Some attention to materiality. | Relatively balanced emphasis on both but empirical findings emphasising stability (path dependence) | Deductive derivation of theoretical concepts but largely inductive analysis. | Equal emphasis on IT and ANT and extensive discussion of similarities and differences. | Unit of analysis predefined but relatively open-ended as to which actors and relationships matter. | Implementation of enterprise resource planning system in one organisation. | Explicitly cautioning against overly strict macro/micro distinctions. | Both recognised as one of the main differences between IT and ANT (although recent advances in IT in favour of indeterminacy recognised). |